

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An integrated circuit, comprising:
a target element; and
a metal fence provided so as to surround the target element,
the metal fence including (i) a lamination of metal wire layers for forming an electromagnetic isolation structure and (ii) a plurality of vias for connecting the metal wire layers with each other,

the metal fence satisfying

$$d \leq \lambda/8,$$

$$WF \geq 5\delta, \text{ and}$$

$$L \leq \lambda/20,$$

where δ is a skin depth of an electromagnetic wave, c is a velocity of light, f is an operating frequency of the integrated circuit, ~~d is a lateral direction size of a metal fence region~~ $d = \text{Area}^{1/2}$ (where Area is an area of a circuit region to be protected), WF is a surrounding-line width of the metal fence, L is an interval between the vias, and $\lambda = c/f$ is a wavelength of a signal.

2. (Original) An integrated circuit as set forth in claim 1, further comprising:
a guard ring provided right under the metal fence, the guard ring being made of a first diffusion layer whose conductivity type is identical to a conductivity type of a substrate,
the guard ring being connected with a fixed potential,
the guard ring being electrically isolated from the metal fence.

3. (Original) An integrated circuit as set forth in claim 1, further comprising: a well provided below the target element, the well being connected with a substrate.

4. (Original) An integrated circuit as set forth in claim 1, further comprising:
a low-resistance layer provided below the target element, a conductivity type of the low-resistance layer being identical to a conductivity type of a substrate,
the low-resistance layer being connected with a fixed potential,
the low-resistance layer being electrically isolated from the metal fence.

5. (Original) The integrated circuit as set forth in claim 4, wherein: an area of the low-resistance layer is equivalent to an area surrounded by the metal fence.

6. (Original) The integrated circuit as set forth in claim 5, wherein: the low-resistance layer is a salicide diffusion layer.

7. (Original) The integrated circuit as set forth in claim 5, wherein: the low-resistance layer is a silicidized polysilicon layer.

8. (Original) The integrated circuit as set forth in claim 1, wherein: between a plurality of elements each of which has the metal fence is a substrate.

9. (Original) The integrated circuit as set forth in claim 1, wherein: between an element having the metal fence and another element having no metal fence is a substrate.

10. (Original) The integrated circuit as set forth in claim 1, wherein: the target element is an element that generates an electromagnetic field in the integrated circuit.

11. (Original) The integrated circuit as set forth in claim 10, wherein: the target element is a high-frequency device.

12. (Original) The integrated circuit as set forth in claim 11, wherein: the target element is a spiral inductor.

13. (Original) The integrated circuit as set forth in claim 1, wherein: the metal fence is grounded.

14. (Original) The integrated circuit as set forth in claim 1, wherein: a distance SF between the metal fence and the target element is given by $SF > 25\mu\text{m}$.

15. (Original) The integrated circuit as set forth in claim 1, wherein:
the metal fence is AlCu;
a thickness of each metal wire layer of the metal fence is $0.6\mu\text{m}$ to $1.5\mu\text{m}$; and
the WF is given by $WF > 5\mu\text{m}$.

16. (Original) The integrated circuit as set forth in claim 1, wherein: a height of the metal fence as a whole is equal to or higher than a level of the target element.

17. (Original) The integrated circuit as set forth in claim 1, wherein: a top and a bottom of the target element are not covered with the metal fence, so that the top and the bottom of the target element are exposed.